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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/760,441

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Chun Yuan

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EXAMINER

RICHARDSON, THOMAS W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,441	Applicant(s) YUAN ET AL.	
	Examiner THOMAS RICHARDSON	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 27, and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-20, 27, and 28 are pending for examination.

Claims 1, 5, and 12 are amended.

Claims 27 and 28 are newly added.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 May 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-20, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0004998, Datta and US 7 177 900, Ims et al.

5. As per claim 1, Datta teaches a method of communicating between two computing devices, the method comprising:

receiving, by a first computing device, a request for content that includes an item cached by the first computing device and another item that is not cached by the first computing device (paragraph [0090], where the dynamic cache server receives a request for a web page);

sending, by the first computing device to a second computing device, the request (paragraph [0090], where the cache server passes the request to the back end monitor);

receiving, by the first computing device from the second computing device, content generated by the second computing device based on the request, the request being usable by the second computing device to determine content to be included in the generated content (paragraph [0090], where the back end monitor performs processing and forwards the content back to the cache server);

combining, by the first computing device, the cached item and the generated content (paragraph [0090], where the cache server assembles the layout instructions); and

sending, by the first computing device, the combined content to a destination (paragraph [0090], where the cache server serves the web page).

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

sending, by a first device, a request and an identifier associated with the cached item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler

invokes the application on the web server for creating web pages in response to requested content); and
receiving, by the first device from the second device, content based on the identifier, the identifier being usable by the second computing device to determine content that is not to be included in the generated content, the request being useable by the second computing device to determine content to be included in the generated content (column 8, line 42 to column 9, line 7, where the request determines the user-specific fragments for each page request as well as the static cacheable area (component C1). The identifier used to identify the content to be generated inherently identifies the content not to be generated, as that content is the content that is not expressly identified).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

6. As per claim 2, Datta further teaches that the cached item includes at least one of a web page and a fragment (paragraph [0090], where the cache server contains objects such as fragments or page layouts).

7. As per claim 3, Datta further teaches that the identifier includes a cache key (paragraph [0113], where the template can include a key).
8. As per claim 4, Datta further teaches that the generated content includes a place holder to represent the cached item (paragraph [0110], where the generated content includes markers for the cached data).
9. As per claim 5, Datta further the generated content at least one cacheable item and metadata associated with the cacheable item, wherein the metadata enables the first computing device to cache the cacheable item. (paragraph [0099], where the there is a key assigned to the cacheable data with instructions), and wherein the metadata enables the first computing device to cache the cacheable item (paragraph [0099], where the instructions include a “set” command).
10. As per claim 6, Datta further teaches deleting, by the first computing device, the metadata before sending the combined content to the destination (paragraph [0102], where the set command is followed by the cache server, not included in the assembled content).
11. As per claim 7, Datta further teaches:
caching, by the first computing device, the cacheable item (paragraph [0102], where the cache server stores the data tagged with the “set” command); and
maintaining, by the first computing device, the cacheable item in accordance with the metadata (paragraph [0102], where the data is stored in the cache server).

12. As per claim 8, Datta further teaches: implementing, by the first computing device, a policy for caching the cacheable item based on the metadata (paragraph [0102], where the “set” command causes the cache to store the data).

13. As per claim 9, Datta further teaches that the metadata includes at least one of a name, a key, and information for identifying conditions under which the cacheable item may be cached (paragraph [0102], where the data generated includes a template, key, and “set” command).

14. As per claim 10, Datta further teaches that the generated content includes multiple items (paragraph [0090], where the data includes payout instructions and some content).

15. As per claim 11, Datta further teaches that the first computing device is a proxy and the second computing device is a content server (paragraph [0090], where the system contains a proxy cache and a back end server).

16. As per claim 12, Datta teaches a system comprising:
a proxy server configured to process a request for content having items that are cached, the proxy server being further configured to forward the request (paragraph [0096], where the cacheable content is tagged); and
a content server configured to dynamically generate content specified in the request from the proxy server based on the request, the dynamically generated content excluding content of the request that relates to identifiers associated with the cached items, the dynamically generated content including content of the request not excluded by the identifiers, and the dynamically generated content

having information for the proxy server to combine the dynamically generated content with the cached items for processing the request (paragraph [0113], where the content generated contains markers for the cached data).

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

a proxy server configured to send a request and an identifier associated with an item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler invokes the application on the web server for creating web pages in response to requested content); and

a content server configured to dynamically generate content specified in the request based on the identifier, the identifier being usable by the second computing device to determine content that is not to be included in the generated content, the request being useable by the second computing device to determine content to be included in the generated content (column 8, line 42 to column 9, line 7, where the request determines the user-specific fragments for each page request as well as the static cacheable area (component C1). The identifier used to identify the content to be generated inherently identifies the content not to be generated, as that content is the content that is not expressly identified).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a

server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

17. As per claim 13, Datta further teaches that the dynamically generated content includes multiple items that are not cached by the proxy server (paragraph [0113], where the banner and greeting are generated each time by the back end server).

18. As per claim 14, Datta further teaches that the items include at least one of a web page and a fragment (paragraph [0109], where the web page contains multiple blocks that can be tagged or untagged).

19. As per claim 15, Datta further teaches that the information in the content includes place holders for inserting the items cached by the proxy server (paragraph [0110], where the content contains markers for cached data).

20. As per claim 16, Datta further teaches that the place holders include at least one substitution tag (paragraph [0113], where the “get” command inserts cached data into the page).

21. As per claim 17, Datta further teaches that the identifiers include cache keys and each place holder is identified with at least one of the cache keys (paragraph [0113], where each marker can include a key).

22. As per claim 18 Datta further teaches a content server is further configured to generate cacheable items and metadata associated with the cacheable item in response to the request (paragraph [0110], where the “set” command can be added to generated data that is not in the cache), and wherein the proxy server is configured to

cache the cacheable items in a computer-readable media and to use the cacheable items to process subsequent requests based on the metadata (paragraph [0112], where the “set” command stores the data in the cache server).

23. As per claim 19, Datta further teaches that the metadata includes at least one cache tag (paragraph [0111], where the data includes a key).

24. As per claim 20, Datta further teaches that the cache tag includes a key (paragraph [0111], where the data includes a key).

25. As per claim 27, Datta teaches a system comprising:

a proxy server configured to:

process a request for content, the proxy server having first items identified in the content that are cached and second items identified in the content that are not cached (paragraph [0096], where the application server may or may not tag a code block for cacheable content on the proxy server),

generate a cache key for each of the first items that are cached (paragraph [0113], where the template can include a key), and

a content server configured to dynamically generate content specified in the request from the proxy server based on the request, the dynamically generated content excluding content of the request that relates to identifiers associated with the cached items, the dynamically generated content including content of the request not excluded by the identifiers (paragraph [0113], where the content generated by the application server contains markers for the cached data).

Art Unit: 2144

Datta does not expressly teach forwarding a request along with an identifier to the cached data. Ims teaches distributed fragment caching and assembly comprising:

a proxy server configured to send a request and an identifier associated with each item (column 8, line 42 to column 9, line 7, where the fragment cache/assembler invokes the application on the web server for creating web pages in response to requested content); and

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Datta's system with the fragment caching identifiers given by Ims. It would be beneficial in terms of speed and efficiency to process in the proxy server, as in Ims's system. This allows the cache server to request both static and dynamic content from a server, and further allows the cache server to cache fragments of the data, including the static content, which would allow the system to work more efficiently with less requests to the application server.

26. As per claim 28, Datta further teaches the dynamically generated content having information for the proxy server to combine the dynamically generated content with the cached items for processing the request (paragraph [0114], where the content generated contains markers for the cached data for the proxy to assemble the content).

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 7 383 348, Seki et al teaches a data transfer scheme using a caching technique.

US 7 343 396, Kausik et al teaches precomputation of web documents.

US 7 191 170, Ganguly et al teaches predicate indexing cached data.

US 7 051 084, Hayton et al teaches a method and apparatus for regenerating and transmitting a partial page.

US 6 854 018, Li et al teaches a system and method for intelligent web content fetch and delivery.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS RICHARDSON whose telephone number is (571) 270-1191. The examiner can normally be reached on Monday through Thursday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/760,441
Art Unit: 2144

Page 12

/Paul H Kang/
Primary Examiner, Art Unit 2144

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